

## Aberystwyth University

### *Deep phylogeographic structure may indicate cryptic species within the Sparid genus Spondyllosoma*

McKeown, Niall; Gwilliam, Michael; Healey, Amy; Skujina, Ilze; Potts, Warren; Sauer, W. H. H.; Shaw, Paul

*Published in:*  
Journal of Fish Biology

*DOI:*  
[10.1111/jfb.14316](https://doi.org/10.1111/jfb.14316)

*Publication date:*  
2020

*Citation for published version (APA):*

McKeown, N., Gwilliam, M., Healey, A., Skujina, I., Potts, W., Sauer, W. H. H., & Shaw, P. (2020). Deep phylogeographic structure may indicate cryptic species within the Sparid genus Spondyllosoma. *Journal of Fish Biology*, 96(6), 1434-1443. <https://doi.org/10.1111/jfb.14316>

#### **Document License** CC BY

#### **General rights**

Copyright and moral rights for the publications made accessible in the Aberystwyth Research Portal (the Institutional Repository) are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the Aberystwyth Research Portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the Aberystwyth Research Portal

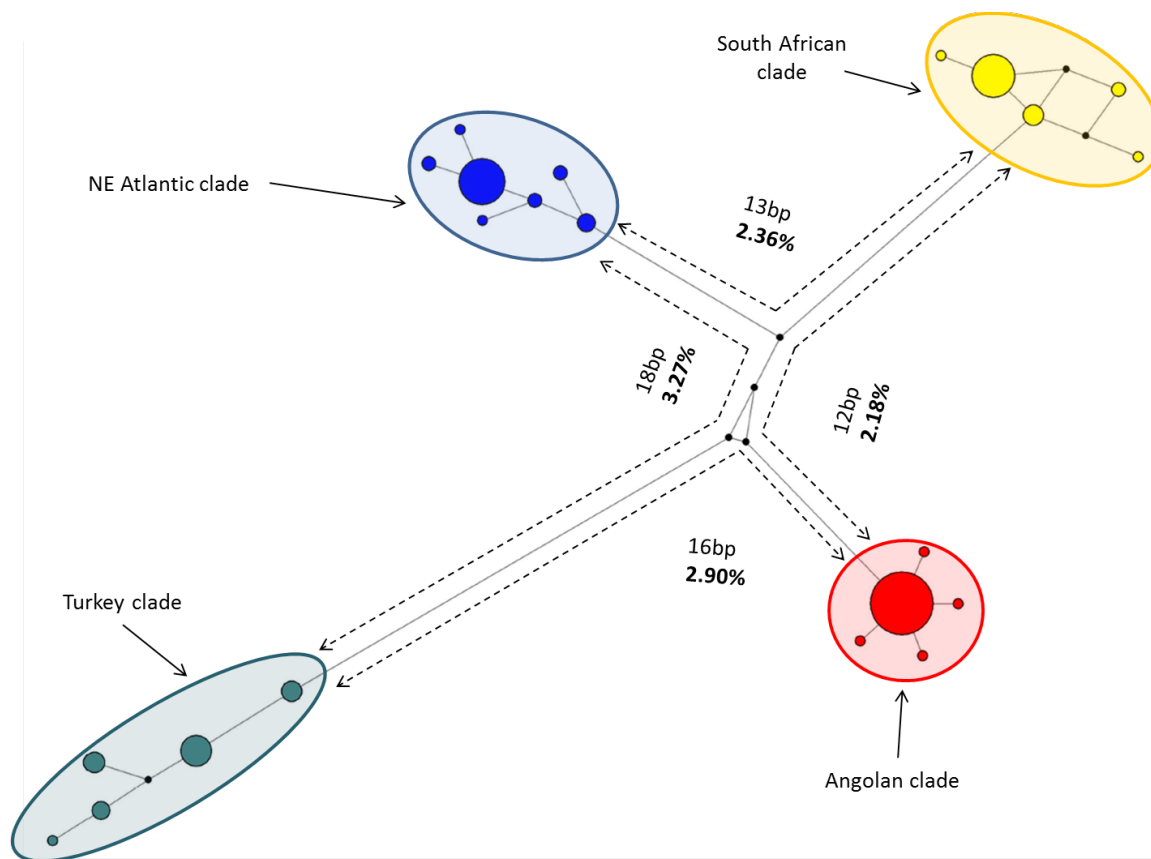
#### **Take down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

tel: +44 1970 62 2400  
email: [is@aber.ac.uk](mailto:is@aber.ac.uk)

Supplementary Table 1: Overview of published loci tested for transferability in *SpondylIOSoma* spp.

Locus	Target species	Reference	Forward primer	Reverse primers
DsaMS16	<i>Diplodus sargus</i>	Perez et al. (2008)	AGTCAAACCTCGGCATCAAGCGGGTA	ACGAGGAGCTCTGACTTCTGATTCTT
DsaMS27	<i>Diplodus sargus</i>	Perez et al. (2008)	GCTCACTGTGCTGGCTCCACATCACC	GCGCTGTGCTTGCTGTCTGGAGA
DsaMS34	<i>Diplodus sargus</i>	Perez et al. (2008)	AGATCAGATTTGCTGTGATAGCGTCCAAAG	ACTCCTGCAGCTCCTCCTGGGCTTC
DsaMS48	<i>Diplodus sargus</i>	Perez et al. (2008)	ACATCGCACACCCCCACAACC	TGCATGAACAACTTCCACACACAACTCC
Dvul33	<i>Diplodus vulagris</i>	Roques et al. (2007a)	GCCGGGCTCGACATTGACACTGAA	GCAGCCAGCAGAGCTTAAAGAACT
Dvul38	<i>Diplodus vulagris</i>	Roques et al. (2007a)	TCGGGCACAGATAGAAAGAAACAC	GAAGGAAGACGGATCTCAGGATGA
Dvul4	<i>Diplodus vulagris</i>	Roques et al. (2007a)	GCGGTTATGTATACGTTGCGTTTA	TTGGCGTTGAACAGAAGTCAGACA
Dvul61	<i>Diplodus vulagris</i>	Roques et al. (2007a)	TGGGGACTCTCAGAATCATCACAA	TGGAAAAAGCCCTCTGGACAAAAG
Dvul84	<i>Diplodus vulagris</i>	Roques et al. (2007a)	GCTCGACGTGCACTCTGCCCTTGA	ATTCCCCAAATCCAGCACTCACAT
LM12	<i>Lithognathus mormyrus</i>	Sala-Bozano et al. (2009)	ACGGTATGGAGTCAACTGC	GAGTGTTTCTGACAGGATGAGAAC
LM19	<i>Lithognathus mormyrus</i>	Sala-Bozano et al. (2009)	AAACACACCTTCCCTCTCCT	AGCTGCTCAAACAGGCTATGA
LM68	<i>Lithognathus mormyrus</i>	Sala-Bozano et al. (2009)	CTTCAGGGGCGTTTTAGC	ACCAGGACAGGACCAGGTG
LM72	<i>Lithognathus mormyrus</i>	Sala-Bozano et al. (2009)	ATTGCAGACATGTCAGATGC	TATGCTCTAATGGCAATGCTC
LM86	<i>Lithognathus mormyrus</i>	Sala-Bozano et al. (2009)	ACTGCTGGCCTCTCTTTTGA	TGCCTCGTAATCCTCCACTT
Omel20	<i>Oblada melanura</i>	Roques et al. (2007b)	CAGGGTAGCAACAGGGTAACAATG	GGCGGTTGAGGACACTGCAAAAAA
Omel38	<i>Oblada melanura</i>	Roques et al. (2007b)	AGCCGGCTGAGCTCCATAATAACC	TGCCCTCTTGTCACACCAGGTCAC
Omel58	<i>Oblada melanura</i>	Roques et al. (2007b)	GGCATTATTGTTCCATCATTACTCC	ATGGCATACAACCTGCATCAGAAG
Omel61	<i>Oblada melanura</i>	Roques et al. (2007b)	CAGCGGGGGATTAATCTGCATTG	GCCCGATTATCTTCATCACCCAT



Supplementary

Figure 1. Median-joining haplotype network for *Spondyliosoma* spp based on 550bp of mtDNA COI. Node sizes are proportional to the observed number of individuals bearing that haplotype, with the smallest nodes representing a single individual. Predicted missing (or extinct) haplotypes are represented by small black nodes. Defined clades are encircled.